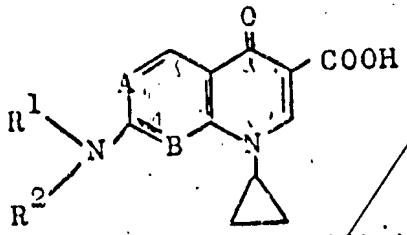
WHAT IS CLAIMED IS:

1. A compound which is a 7-amino-1-cyclopropyl-4-oxo-1,4-dihydro-quinoline- and -naphthyridine-3-carboxylic acid of the formula



(I)

or a pharmaceutically acceptable acid addition salt or an alkali or alkaline earth metal salt thereof,

in which

A represents a nitrogen atom or CR^3,

wherein

R^3 denotes a hydrogen, a nitro group or a halogen atom, or a carboxamide or carboxyl group, and

B represents a nitrogen atom or C-H, and A and B cannot simultaneously be nitrogen atoms, and

R^1 and R^2 are identical or different and represent a hydrogen atom or a straight-chain or branched alkyl, alkenyl or alkinyl radical which has up to 12 carbon atoms and is optionally substituted by radical(s) selected from hydroxyl, alkoxy, alkylmercapto or dialkylamino with 1 to 3 carbon atoms in each alkyl radical, alkoxycarbonyl with 1 to 4 carbon atoms in the alcohol part, mono- or bi-cyclic carbocyclic aryl and mono- or bi-cyclic N-, O- or S-hetaryl, or furthermore represent a cycloalkyl radical with 3 to 6 carbon atoms, or, together with the nitrogen atom which they substitute and, if appropriate, a further hetero-atom form a 3-membered to 7-membered ring which can be mono-substituted or polysubstituted by radical(s) selected from alkyl or alkenyl with 1 to 6 carbon atoms,

hydroxyl, alkoxy or alkylmercapto with 1 to 3 carbon atoms, alkoxycarbonyl with 1 to 4 carbon atoms in the alcohol part, and mono- or bi-cyclic carbocyclic aryl, and which can furthermore possess a double bond.

2. A compound according to claim 1, in which A represent CR^3 and R^3 represents a fluorine or chlorine atom.

3. A compound according to claim 1 or 2, in which R^1 and R^2 together with the nitrogen atom which they substituted and oxygen or sulphur or NR^4 as a further heteroatom form a 3-membered or 7-membered ring which can be monosubstituted or polysubstituted by radical(s) selected from alkyl or alkenyl with up to 6 carbon atoms, hydroxyl, alkoxy or alkylmercapto with 1 to 3 carbon atoms, alkoxycarbonyl with 1 to 4 carbon atoms in the alcohol part, and mono- or bi-cyclic carbocyclic aryl, and which can furthermore possess a double bond,
and in which

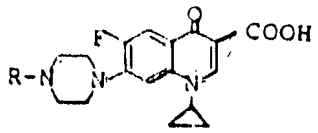
R^4 represents a hydrogen atom, or a branched or straight-chain alkyl, alkenyl or alkinyl group which has up to 6 carbon atoms and is optionally substituted by radical(s) selected from hydroxyl, alkoxy, alkylmercapto or dialkylamino with 1 to 3 carbon atoms per alkyl radical, and alkoxycarbonyl with 1 to 4 carbon atoms in the alcohol part, or represents an aralkyl group which is optionally substituted in the mono- or bi-cyclic carbocyclic aryl radical and has up to 4 carbon atoms in the aliphatic part, or an optionally substituted phenyl or naphthyl group or a heterocyclic radical, or

R^4 denotes an alkoxycarbonyl group which is optionally substituted by a mono- or bi-cyclic carbocyclic aryl radical and has 1 to 4 carbon atoms in the alcohol part, an alkanoyl radical with 1 to 6 carbon atoms, an

aroyl radical, an optionally substituted alkyl- or aryl-(thio)carbamoyl radical, an alkyl- or aryl-sulphonyl radical or an optionally substituted aminosulphonyl radical.

4. A compound according to claim 3, in which R^4 represents a radical of pyridine, pyrimidine, thiazole or benzothiazole.

5. A 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-piperazino-quinoline-3-carboxylic acid of the formula



(I)

or salts and/or hydrates thereof,

in which

R denotes hydrogen, methyl, ethyl or β-hydroxy-ethyl.

6. A compound according to claim 1 which is 7-(4-methyl-piperazino)-1-cyclopropyl-4-oxo-1,4-dihydro-naphthyridine-3-carboxylic acid.

7. A compound according to claim 1 which is 7-piperazino-1-cyclopropyl-4-oxo-1,4-dihydro-naphthyridine-3-carboxylic acid.

8. A compound according to claim 1 which is 7-pyrrolidino-1-cyclopropyl-4-oxo-1,4-dihydro-naphthyridine-3-carboxylic acid.

9. A compound according to claim 1 which is 7-(4-formylpiperazino)-1-cyclopropyl-4-oxo-1,4-dihydro-naphthyridine-3-carboxylic acid.

10. A compound according to claim 1 which is 7-(4-hydroxyethylpiperazino)-1-cyclopropyl-4-oxo-1,4-dihydro-naphthyridine-3-carboxylic acid.

11. A compound according to claim 1 which is 7-piperazino-1-cyclopropyl-4-oxo-1,4-dihydro-6-fluoro-quinoline-3-carboxylic acid.

12. A compound of claim 5 which is 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-piperazino-quinoline-3-carboxylic acid.

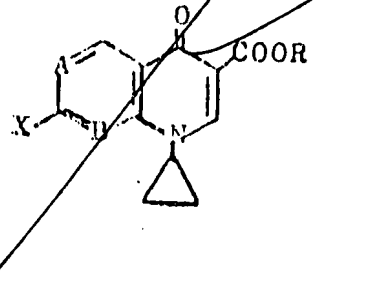
13. A compound of claim 5 which is 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(4-methylpiperazino)-quinoline-3-carboxylic acid.

14. A compound of claim 5 which is 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(4-ethylpiperazino)-quinoline-3-carboxylic acid.

15. A compound of claim 5 which is 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(4-β-hydroxyethyl-peperazino)-quinoline-3-carboxylic acid.

16. A process for the production of a compound according to claim 1 which comprises reacting

(a) a naphthyridone-3-carboxylic acid of the formula



(II)

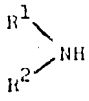
in which

R denotes a hydrogen atom

A and B have the same meanings as in Claim 1 and

X represents a halogen atom or an alkylsulphonyl group with 1 to 4 carbon atoms,

with an amine of the formula



(III)

in which

R^1 and R^2 have the same meanings as in claim 1 or

(b) reacting a 7-halogeno-naphthyridone-3-carboxylic acid ester of the formula (II) with an amine of the formula (III), as defined above, and hydrolizing the resulting 7-amino-naphthyridine-3-carboxylic acid ester under alkaline conditions.

17. A process according to claim 16 (b), in which the reaction is carried out in the presence of an acid binding agent.

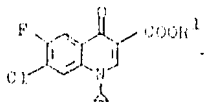
18. A process according to claim 17, in which the acid binding agent is triethylamine or pyridine.

19. A process according to claims 16 a), 16. b), 17 or 18 in which the reaction is carried out in ethanol, dioxane, toluene, dimethylformamide or dimethylsulphoxide as diluent.

20. A process according to claim 19 in which the reaction is carried out at a temperature between 20° and 180°C.

21. A process for the production of a compound according to claim 5, which comprises reacting

(a) 7-chloro-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-quinoline-3-carboxylic acid of the formula

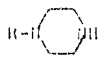


II'

in which

R^1 denotes a hydrogen atom,

with piperazine or a piperazine derivative of the formula



III'

in which

R has the same meaning as in claim 1, or

(b) a compound of formula (II), as given in reaction variant (a), in which R^1 denotes an alkyl group, with a compound of formula (III), as defined in reaction variant (a), and the 7-piperazo-quinolone-3-carboxylic acid ester obtained is hydrolysed under alkaline conditions to give a compound of formula (I),

and the compound of formula (I), obtained by reaction variant (a) or (b) is converted, if desired, into a salt or hydrate thereof.

22. A process according to claim 20 (a), characterized in that the reaction is carried out in the presence of a diluent.

23. A process according to claim 21 (a) or 22, characterized in that the reaction is carried out at a temperature between 20 and 200°C.

24. A process according to claim 21 (b), characterized in that the reaction is carried out in the presence of an acid-binding agent.

16
~~25~~. A pharmaceutical composition containing as an active ingredient an antibacterially effective amount of a compound according to claim 1 in admixture with an inert pharmaceutical carrier.

17
~~26~~. A pharmaceutical composition according to claim 16 ~~25~~ in the form of a sterile or physiologically isotonic aqueous solution.

18
~~27~~. A composition according to claim 16 ~~25~~ or 17 ~~26~~ containing from 0.5 to 95% by weight of the said active ingredient.

19
~~28~~. A medicament in dosage unit form comprising an antibacterially effective amount of a compound according to claim 1 together with an inert pharmaceutical carrier.

~~29~~. A medicament of claim 18 ~~27~~ in the form of tablets, pills, dragees, capsules, ampoules, or suppositories.

21
~~30~~. A method of combating bacterial illnesses in warm-blooded animals which comprises administering to the animals an antibacterially effective amount of an active compound according to claim 1 either alone or in admixture with a diluent or in the form of a medicament.

22
~~31~~. An animal feed, food concentrate or drinking water comprising an active compound according to claim 1.

32. 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-chloro-quinoline-3-carboxylic acid.

33. Ethyl 2,4-dichloro-5-fluorobenzoyl-acetate.

34. Ethyl 2-(2,4-dichloro-5-fluorobenzoyl)-3-ethoxy-acrylate.